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An annotated checklist of *Volvariella* in the Iberian Peninsula and Balearic Islands

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Abstract — This checklist collates data on the 12 taxa of *Volvariella* reported from the Iberian Peninsula (Spain, Portugal) and Balearic Islands (Spain). The complete checklist, posted at http://www.mycotaxon.com/ resources/weblists.html, provides data on the collections, distribution, ecology, and phenology of each taxon.

Key words — *Agaricales, Agaricomycetes,* biodiversity, *Pluteaceae*

Introduction

Volvariella Speg. is a genus traditionally classified in the family *Pluteaceae* Kotl. & Pouzar (*Agaricales, Basidiomycota*), but recent molecular research has challenged its monophyly and taxonomic position within the *Agaricales* (Moncalvo et al. 2002, Matheny et al. 2006). Its main characteristics are the pluteoid basidiomes (i.e., free lamellae; context of pileus and stipe discontinuous), universal veil present in mature specimens as a saccate volva at the stipe base, brownish-pink spores in mass, and — primarily —inverse lamellar trama. *Volvariella* comprises about 50 species (Kirk & al. 2008) and is widely distributed around the world (Singer 1986).

Monographic studies of the genus have been mostly carried out in Europe (Kühner & Romagnesi 1956; Orton 1974, 1986; Boekhout 1990), North America (Shaffer 1957), and Africa (Heinemann 1975, Pegler 1977).

In the Iberian Peninsula (Spain, Portugal) and Balearic Islands (Spain) the records of *Volvariella* are scattered, as they are often included in general checklists. Prior to our study, the only taxonomic paper on this genus in this region was an article by Vila et al. (1999), which described the new taxon, *Volvariella nigrovolvacea* var. *dunensis.* Justo & Castro (2004 and Justo et al.

(2005) published studies on *Volvariella* within the Iberian Peninsula as a part of the Flora Mycologica Iberica project. Here, we present the first comprehensive account of *Volvariella* in the Iberian Peninsula and Balearic Islands.

Collections examined

We have studied the collections gathered by members of the Mycology Lab at Vigo University from 1991 to 2008. Collections of *Volvariella* deposited in several Iberian herbaria, both official and personal, have been examined and revised.

The information obtained from the bibliographic references of *Volvariella* in the Iberian literature has been incorporated into the distribution maps for each species.

Catalogue

In the online checklist (http://www.mycotaxon.com/resources/weblists.html) the following information is given for each taxon: a list of all collections examined; a map of its distribution in our area and some brief comments on its ecology and phenology.

The catalogue covers the following 12 taxa of *Volvariella* recorded in the Iberian Peninsula and Balearic Islands:

1. *Volvariella bombycina* (Schaeff.) Singer var. *bombycina*
2. *Volvariella bombycina* var. *flaviceps* (Murrill) Shaffer
3. *Volvariella caesiotincta* P.D. Orton
4. *Volvariella dunensis* (Vila et al.) Justo & M.L. Castro
5. *Volvariella earlei* (Murrill) Shaffer
6. *Volvariella gloiocephala* (DC.) Boekhout & Enderle
7. *Volvariella hypopithys* (Fr.) Shaffer
8. *Volvariella murinella* (Quél.) M.M. Moser ex Dennis et al.
9. *Volvariella pusilla* (Pers.) Singer
10. *Volvariella surrecta* (Knapp.) Singer
11. *Volvariella taylorii* (Berk. & Broome) Singer
12. *Volvariella volvacea* (Bull.) Singer

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